

# CRT-ALT and Issues of Interrater Reliability

An update on the assessment of students with severe cognitive disabilities within MontCAS

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## Team of Presenters

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## Options for Participation for Students with Disabilities

- Same assessment as other students
- Same assessment with necessary accommodations
  - Standard accommodations
  - Nonstandard accommodations
- Alternate assessment – alternate performance standards**
- Alternate assessment – modified achievement standards????????

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## An Alternate Assessment is:

“....a method of measuring the performance of students unable to participate in the typical district of state assessment.”

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## Approaches to Alternate Assessment

- Observation, videotape, audiotape
- Interviews and Checklists
- Testing (structured performance events)
- Portfolio Assessment
- Record Review (student products, IEP objectives and progress)
- **Montana's choice: checklist (ITBS Alternate); performance task (CRT-Alternate)**

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## Strategies for Linking Assessment to Existing Content Standards

- Montana's approach to standards (broad-based) facilitate natural extension to encompass broader range of performance.
- Extended standards focus on basic skills that provide foundation for further development.
- Sample benchmarks are provided to assist teams in “thinking broadly” when considering students with the most severe disabilities

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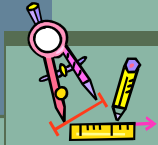
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## Montana's Standards and Expanded Benchmarks



Measuring standards-based knowledge, skills and abilities of students with significant cognitive disabilities

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## Expanded Benchmarks

- Expanded from end of grade 4, end of grade 8, and end of grade 12 to foundational skills.
- Are not grade level specific, due to the wide diversity of students in this population.
- Used to develop the assessment performance indicators.

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## Expanded Benchmarks and Standards-Based Instruction

- Expanded benchmarks describe the scope and sequence of the acquisition of content related knowledge, skills and abilities along a learning continuum.
- Expanded benchmarks can identify the next step for the development of the student's individualized educational plan.
- Standards become reachable and teachable.

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## How were the expanded benchmarks developed?

- Measured Progress curriculum and special education specialists developed a draft of the framework.
- OPI reviewed it.
- Beta test teachers provided input.
- The Advisory committee provided recommendations.
- The framework was revised to include grade span expectations per new federal legislation.

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## How are the standards and expanded benchmarks organized?

- Content Area
  - Standard
    - Essence of the standard
  - Grade level expectation
    - Expanded benchmark
      - Performance Indicator
      - Prompt or example if needed

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## Sample Extended Benchmark: Math

- Standard #2: Demonstrate understanding of and an ability to use numbers and operations.
- Essence: Number concepts, concepts of operations, computing and estimating.
- Grade 4 expectation: Students will use the number system by counting, grouping, and applying place value concepts.
  - Expanded Benchmark: Demonstrate an understanding of whole numbers.
    - Indicator: The student will demonstrate the concept of one (e.g., "Hit the switch one time", "Give me one").

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## Sample Extended Benchmark: Reading

- **Standard #2:** Students apply a range of skills and strategies to read.
- **Essence:** Interpret print and non-print information.
- **Grade 8 expectation:** Develop vocabulary through the use of context clues, analysis of word parts, auditory clues, and references sources.
  - **Expanded Benchmark:** Uses word/pictures/symbols/objects to communicate.
  - **Indicator:** The student will identify a word/picture/symbol/object used to name a familiar place.

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## Implementation and Scoring of the CRT

### Technical Issues

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## Scoring

Montana Alternate Assessment Scoring Guide				
Performance (independence and accuracy)				
Used to score every item during the structured observation test activity.				
4	3	2	1	0
Student responds accurately and with no assistance.	Student responds accurately when teacher clarifies, highlights important information or reduces the range of options to three.	Student responds accurately when teacher provides basic yes/no questions or forced choices between two options.	Student is guided to correct response by teacher (e.g., modeling the correct response or providing full physical assistance).	Student does not respond or actively resists.

- Scoring and scaffolding are directly related processes
- Except for several introductory items, each item is scored using the rubric above
- The rubric is sensitive to small differences in performance among students that may require assistance in order to respond to the test items

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## Scaffolding

- ALWAYS allow student the opportunity to respond independently
- Proceed through scaffolding sequentially
- Score response based on level of assistance provided

**"You will put your name on this worksheet. Which of these is your name?"**

Assist the student to write his/her name on the worksheet.

**Scaffold:**  
**Level 3:** Remove one incorrect name. Repeat question.  
**Level 2:** Remove another incorrect name. Repeat question.  
**Level 1:** Remove another incorrect name. "Here is your name. Show me your name." Assist student as needed to identify name.

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## Introductory Items

- Introductory items are scored on a different scale
- They are often the first few items, but some activities have these type of items in later sections of the test

Student Work Student will:	Performance Indicators Use Scoring Guide
3. Attend to the teacher setting up the activity.	3. Attends to another person demonstrating a procedure.
	0 0
	4 0

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## Evidence Procedures

- Magnifying glass icon flags items that require evidence
- Choose documentation method based on the way in which the student responds

 **Evidence**  
 Use the Research Project Summary template provided to record the student's name.

**Research Project Summary Template**

name 
animal/topic 
title  <b>Animal Kingdom</b>
animal fact 

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## Making the Test Work for All Students

Flexibility and Customization Options

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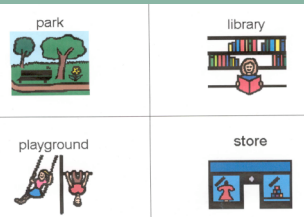
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## Multiple Choice Questions

- Multiple choice type questions

4. Display 4 word/picture symbols on the work space.

*“Show me the word/picture/symbol/object that means library.” (If library is not available, substitute appropriate term.)*



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## Adapting the Student Response

- Modify size/display of pictures
- Reword the question so that it requires a “yes”/“no” response
- Teacher can visually scan among the four items, requiring the student to “stop” scanning at the desired response

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## Modifying Size/Display



- Cut laminated grid to display choices as appropriate for student
- Use electronic version of materials to enlarge them
- Program communication device with auditory output to enable student to hear choices
- Use real objects

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## Yes/No Responses

- Shift communication responsibility to the teacher
- *"Let me show you the choices. Is this the library? Is this the library?"*



4. Display 4 word/picture symbols on the work space.

*"Show me the word/picture/symbol/object that means library." (If library is not available, substitute appropriate term.)*

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## Student "Stops" Scanning Display



- Teacher points to each picture in sequence
- Student directs teacher to "stop" when the teacher points to the correct response

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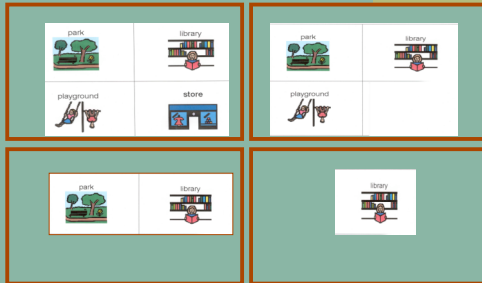
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## Scaffolding Multiple Choice Items




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## Items Requiring Performance

11. Display literary materials on the work space and encourage the student to explore them. Observe correct manipulation of literary materials.

*"Show me how you use this."*

### Communication support strategies:

- Student may look at/point to task materials to express response OR

If student is unable to manipulate the task materials, ask student to indicate (e.g., "yes"/"no") if teacher is handling materials correctly (e.g., "Is the book in the correct position? Am I going to hit the right button?").

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## Example of Scaffolding a Performance Item

- Level 3 = provide additional information
- Level 2 = model correct response
- Level 1 = guide student through correct response

**Scaffold:**  
**Level 3:** Give the student a verbal description of how to hold/book/turn on tape. Repeat task request.  
**Level 2:** Demonstrate the correct way to hold/turn on the material. Give materials to student and repeat task request.  
**Level 1:** Assist student to manipulate materials appropriately, saying "This is how you use this."

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## Open-Ended Questions

6. Explain that the students will bake only one kind of cake. To decide which kind, they should talk to 10 classmates to find out what kind they like.

**"What would you ask your classmates?"**

### Communication support strategies:

- Student may select response from a display of 4 sentence strips (1 correct and 3 incorrect questions).
- Question may be rephrased to require "yes" or "no" response (e.g., "Is this what you would ask?").

What is your name?

What kind of cake do you like?

What did you bring for lunch?

Do you like to eat cake?

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## Scaffolding Open-Ended Questions

### Scaffold:

Level 3: "Here are some ideas." Display and read 3 sentence strips (1 correct/2 incorrect).  
"What would you ask?"  
Student may repeat or point to correct response.  
Level 2: Remove an incorrect response and review the 2 choices.  
"What would you ask?"  
Student may repeat or point to correct response.  
Level 1: Display and read the correct response.  
Guide student to point to or (if possible) repeat the correct response.

- Follow same approach as used for multiple choice questions
- Sentence strips also used for scaffolding students who are verbal

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## Other Communication Support Strategies for Open Ended Questions

- Provide visual display of 4 choices
- Present auditory display of numbers, asking student to "stop" sequence at the correct point

19. Show the 2 boxes and give the student more than 10 counters.

**"How many classmates will 2 boxes serve?"**

### Communication support strategies:

- Student may select response from a display of 4 numbers OR
- Student may select desired response on a number line OR
- Student may stop recorded or spoken sequence of numbers at the correct point.

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Balancing Flexibility and  
Technical Rigor

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Development Steps That Address  
Technical Adequacy of Alt Assessments

- Development of desired student outcomes that reflect understanding of research and practice;
- Careful development, testing, and refinement of assessment methods;
- Scoring of evidence according to professional accepted standards;
- Standard-setting process to allow use of results in reporting and accountability systems; and
- Continuous improvement of the assessment process.

Source: Quenemoen, R., Rigney, S., & Thurlow, M. (2002). *Use of alternate assessment results in reporting and accountability systems: Conditions for use based on research and practice* (Synthesis Report 43). Minneapolis, MN: NCEO.

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Where are we relative to  
technical adequacy?

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## Step 1: Desired Outcomes Reflect Research and Practice (and policy!)

### Content of Test:

- Collaborative work between general and special educators to identify ways in which students can work toward content level standards-→ Extended standards and benchmarks documents in reading and math; science is coming.
- Expertise from curriculum specialists and special educators from Measured Progress
- Emerging (but still sparse) research base demonstrating students capable of learning academic skills

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## Step 1: (continued)

### Administration/Structure of Test:

- Test needed to be sensitive to small increments in student learning
- Utilization of "least to most" prompt hierarchy as basis for administration has a strong foundation in the research literature
- Prompt hierarchy is a familiar teaching method for teachers, so is not a daunting new skill to learn
- In research studies using this strategy, acceptable levels of interrater reliability have been achieved

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## Step 2: Careful development, testing, and refinement of assessment methods

- Extended development process
- Beta test
- Revisions based on beta tests

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### Step 3: Scoring of evidence according to professional accepted standards

- Some concrete evidence submitted to Measured Progress for external review
- Interrater reliability initiative started during Spring testing window

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### Also New: Interrater Reliability Activities

- Trained personnel will be sent to observe test administration with a sample of teachers and students representing all grades and subject areas tested.
- Independent personnel will:
  - Observe to see if test administration procedures correspond with the test protocol.
  - Score student responses for a sample of items, providing data to calculate a scoring reliability index.
- The teachers will be chosen at random

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### Implementation of Interrater Reliability Activities

- Recruited experienced educators and graduate students in school psychology
- Observation for a segment of testing
- Observation protocol focused on:
  - Integrity of administration procedures (e.g., scaffolding, item presentation)
  - Reliability of scoring procedures

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#### Step 4: Standard-setting process to allow use of results in reporting and accountability systems

- Structured, established process facilitated by Measured Progress personnel

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#### Step 5: Continuous improvement of the assessment process

- Survey of test administrators conducted after test implementation in first years
- Interrater reliability study yielding areas in need of refinement
  - Training a priority for continuous improvement

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Questions, Comments,  
Suggestions



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